

### **REMARKS**

The Applicants respectfully request reconsideration of the application in view of the remarks made herein.

#### ***Formal Matters***

Claims 1 and 6 have been amended to specify "a printhead assembly comprising multiple printheads, wherein each of said printheads comprises one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices". Support for these amendments can be found throughout the specification, see, e.g., pages 18-19, paragraph 45 and Figure 3.

Claim 8 has been amended to specify that the "printhead assembly comprises electronic media". Support for this amendment can be found throughout the specification, see, e.g., pages 17-18, paragraphs 42-44.

Claim 22 has been amended to specify that the multiple printhead groups comprises "one or more printheads". Support for this amendment can be found throughout the specification, see, e.g., pages 18-19, paragraph 45 and Figure 3.

New Claim 27 has been added. Support for this new Claim can be found throughout the specification, see e.g., pages 3-5, paragraphs [0007] to [0011].

As the above amendments introduce no new matter, entry of these amendments by the Examiner is respectfully requested.

#### ***Claim Rejections – 35 USC §112***

Claims 1, 6, 8 and 22 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, with respect to Claims 1 and 6, the Examiner asserts that the claims “now reads as if each classification of data in the list refers to the type of each of said printheads” and that “[t]he claim should be further amended to clarify such”.

In response, Applicants have amended claims 1 and 6 to place the wherein clause at the end of the list as suggested by the Examiner.

In addition, the Examiner alleges that claims 1 and 6 are indefinite because “it is unclear how a type of nozzle plate and alignment of nozzle plate can be data when the claim does not previously establish that the printheads comprise nozzle plates”. The Examiner also alleges a similar lack of clarity with respect to the elements of “wells” and “nozzle rows”.

In the spirit of expediting prosecution and without agreeing to the correctness of this rejection, Applicants have amended claims 1 and 6 to specify that the printhead assembly comprises “multiple printheads, wherein each of said printheads comprises one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices”. As such, Applicants submit that the structure of the printhead assembly has been defined such that the selection of data for nozzle plates, wells, or nozzle rows is sufficiently clear.

Moreover, the Examiner asserts that Claim 8 allegedly lacks clarity because “it is unclear what is meant by ‘electronic media associated with said printhead’”.

In response, Applicants have amended Claim 8 to specify that the “printhead assembly comprises electronic media” and that the printhead-related data is read from the electronic media. In view of this amendment, Applicants submit that Claim 8 is sufficiently clear and is not indefinite.

Furthermore, the Examiner asserts that Claim 22 does not further limit "the structure of the assembly" because Claim 22 allegedly "does define what structurally defines a group".

In response, Applicants have amended Claim 22 to specify that each of the multiple printhead groups comprises "one or more printheads". Therefore, Applicants submit that Claim 22 further limits the structure of the assembly by defining that each printhead assembly may comprise multiple printhead groups, each printhead group of which may comprise "one or more printheads".

In light of the amendments to Claims 1, 6, 8 and 22, Applicants respectfully request withdrawal of this rejection.

#### ***Claim Rejections – 35 USC §102***

Claims 1-10, 12-17 and 21 are again rejected under 35 U.S.C. §102(e) as being anticipated by Shchegrova et al. (U.S. 2003/0143329).

Specifically, the Office alleges that Shchegrova et al. discloses a "method, apparatus, and computer program products useful in fabricating chemical biopolymer arrays" which anticipates the claimed invention.

For a rejection of claims under §102 to be properly founded, the Office must establish that a single prior art reference either expressly or inherently discloses each and every element of the claimed invention. *See, e.g. Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987); and *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In *Scripps Clinic & Research Found. v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991), the Federal Circuit held that:

**"Invalidity for anticipation requires that all of the elements and limitations of the claim are found**

**within a single prior art reference.**... There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.”  
*Id.* at 1010.

Anticipation cannot be found, therefore, unless a cited reference discloses all of the elements, features or limitations of the presently claimed invention. Applicants respectfully submit that Shchegrova et al. fails to recite all of the elements of claims 1-10, 12-17 and 21.

In the Office Action, the Examiner asserted that because “the claimed ‘printhead assembly’ only requires the presence multiple single printheads not a sum of printheads” and that “there is no specific structural requirements of the claimed assembly other than multiple printheads”, the asserted selection of a frame in Schegrova meets the claim element of “selecting a printhead assembly”.

Solely to expedite prosecution of the subject application, Claims 1 and 6 have been amended to specify that the claimed printhead assembly comprises “multiple printheads, wherein each of said printheads comprises “one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices”.

In view of these amendments, Applicants submit that selecting a “frame” as specified in Shchegrova is not the same as selecting a printhead assembly comprising multiple printheads, wherein each of the printheads comprises “one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices”, as claimed. A frame as taught in Shchegrova, is “a series of dispensers which can simultaneously move along selected paths”. Selecting a “frame”, as defined by Shchegrova is selecting a subset of nozzles on a particular

printhead. A frame as disclosed by Shchegrova is structurally distinct from a printhead as claimed. Indeed, selecting a printhead assembly comprising multiple printheads, wherein each of the printheads comprises "one or more wells, wherein each of said one or more wells comprises one or more nozzle regions, wherein each of said one or more nozzle regions comprises one or more nozzle rows and wherein each of said one or more nozzle rows comprises multiple nozzle orifices", requires selecting a printhead assembly which includes the structural features of one or more wells, nozzle regions, nozzle rows and nozzle orifices. See paragraph 45 of the specification, which reads:

"As to the subject methodology itself, it involves a set of criteria defining an 'Aggregation Hierarchy'. In the subject model's hierarchy, there exists a 'Printhead Assembly', as represented by Fig. 3. The Assembly 100 corresponds to the sum of all printheads on a writer. The Printhead Assembly is made up of one or more 'Printhead Groups' 102, each of which can print a complete set of the fluids to be dispensed by the writer. Each Printhead Group is made up of one or more 'Printheads' 104, each of which object can be made to fire at a specific point along the travel of the substrate. Each Printhead is made up of up of one or more 'Wells' 108, each of which contains exactly one of the fluids to be printed. Each Well is made up of one or more 'Nozzle Regions' 110, which are distinct from each other by their physical separation along one axis or by the way they are fired. Each Nozzle Region is made up of one or more 'Nozzles' 112, which is the smallest addressable unit of the printhead."

Therefore, because selection of a frame in Shchegrova merely requires selecting a subset of nozzles on a particular printhead for use in a particular printing operation, it cannot read on selecting an entire printhead as structurally defined in the rejected claims.

Accordingly, because Shchegrova fails to teach each and every element of Claims 1-10, 12-17 and 21-22, the Applicants respectfully request the withdrawal of this rejection.

***Claim Rejections – 35 USC §103***

Claims 1-10, 12-17 and 21-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shchegrova et al. (U.S. 2003/0143329).

As noted in the present Office action, Shchegrova qualifies as prior art to the subject application under 35 U.S.C. §102(e).

Referring to 35 USC § 103(c), MPEP § 706.02(l)(1) states "Effective November 29, 1999, subject matter which was prior art under former 35 U.S.C. 103 via 35 U.S.C. 102(e) is now disqualified as prior art against the claimed invention if that subject matter and the claimed invention "were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person." This change to 35 U.S.C. 103(c) applies to all utility, design and plant patent applications filed on or after November 29, 1999, including continuing applications filed under 37 CFR 1.53(b), continued prosecution application filed under 37 CFR 1.53(d), and reissues."

Because the instant application was filed after November 29, 1999 (March 26, 2004), the above changes made to 35 USC § 103(c) apply.

The invention claimed in the instant patent application was owned by Agilent Technologies, Inc. ("Agilent") or subject to an obligation of assignment to Agilent at the time the instant invention was made, as evidenced by an assignment executed by the inventors (Reel/Frame 017784/0990). This assignment was recorded on June 14, 2006.

The Shchegrova application was owned by Agilent or subject to an obligation of assignment to Agilent at the time the instant invention was made, as evidenced by

an assignment executed by the inventors (Reel/Frame 013389/0186). This assignment was recorded on January 28, 2003.

Thus, the subject matter of the cited Shchegrova publication and the claimed invention were, at the time the invention was made, assigned or under obligation of assignment to Agilent.

Under the provisions of 35 USC § 103(c), Shchegrova is disqualified as prior art against the claimed invention. As such, Applicants respectfully request withdrawal of this rejection.

**CONCLUSION**

In view of the amendments and remarks above, Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Office finds that a telephone conference would expedite the prosecution of this application, please telephone Bret Field at (650) 327-3400.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10030938-1.

Respectfully submitted,

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